Amendments to the Claims

Cancel Claims 1-5, 10-13.

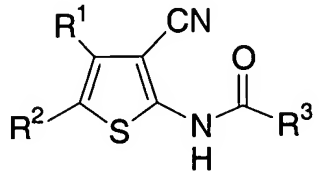
Add Claims 19-23.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. – 5. (cancelled)

6. (currently amended) A compound ~~in accordance with claim 5~~ represented by formula I:



I

or a pharmaceutically acceptable salt or solvate thereof wherein:

R^1 is selected from the group consisting of: H, C_{1-10}alkyl, Aryl, Heteroaryl and Heterocyclyl,

said alkyl, Aryl, Heteroaryl and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

R^3 is selected from the group consisting of: C_{1-10}alkyl and Aryl, said alkyl and Aryl being optionally substituted with one to four substituents independently selected from R^6;

R^4 is selected from the group consisting of: H, C_{1-10}alkyl, Aryl, Heteroaryl, Heterocyclyl, said alkyl, Aryl, Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

R^5 is selected from the group consisting of: C_{1-10}alkyl, Aryl, Heteroaryl and Heterocyclyl, said alkyl, cycloalkyl, Aryl Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

or alternatively, R^4 and R^5 are taken together with the atoms to which they are attached and represent a ring of 5 to 8 members containing 0-2 heteroatoms independently selected from oxygen, sulfur and nitrogen, and optionally substituted with one to four substituents independently selected from R^6;

R^6 is independently selected from the group consisting of halo, C_{1-7}alkyl, Aryl, Heteroaryl, Heterocyclyl, OR^7, SR^7, $S(O)_mR^8$, $S(O)_2OR^8$, $S(O)_mNR^7R^8$, NO_2, NR^7R^8, $O(CR^9R10)_nNR^7R^8$, $C(O)R^8$, CO_2R^7, $CO_2(CR^9R^{10})_nCONR^7R^8$, $OC(O)R^8$, CN, $C(O)NR^7R^8$, $NR^7C(O)R^8$, $OC(O)NR^7R^8$, $NR^7C(O)OR^8$, $NR^7C(O)NR^8R^9$, $CR^7(NOR^8)$, $(CR^9R^{10})_n$-Aryl, $(CR^9R^{10})_n$-Heteroaryl, $(CR^9R^{10})_n$-Heterocyclyl, CF_3 and OCF_3;

wherein m is 0, 1 or 2 and n is an integer from 1 to 7, and the alkyl, Heterocyclyl, Aryl and Heteroaryl groups and portions are optionally substituted with 1-4 substituents selected from a group independently selected from R^{11};

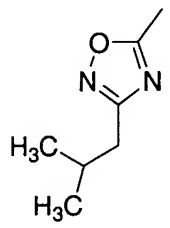
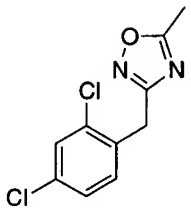
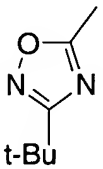
R^7, R^9 and R^{10} are independently selected from the group consisting of: H, C_{1-7}alkyl, Aryl, Ar-C_{1-10}alkyl and mono-, di- and tri- halo substituted Ar-C_{1-10}alkyl,

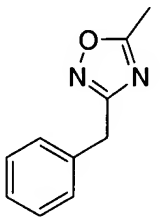
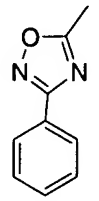
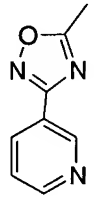
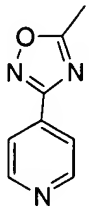
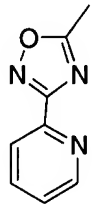
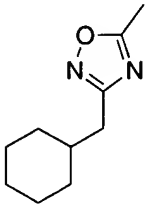
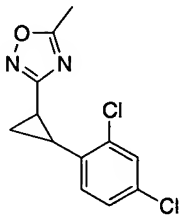
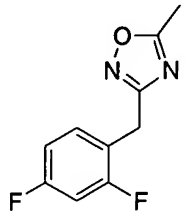
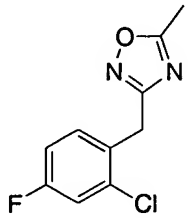
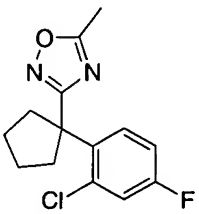
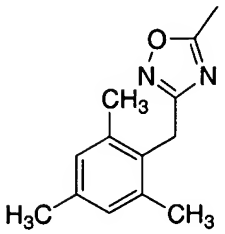
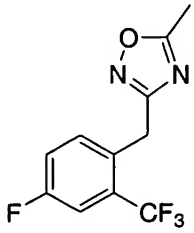
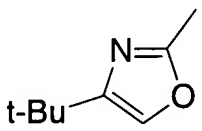
or one R^9 and one R^{10} are taken together with the atoms to which they are attached and any intervening atoms and represent a ring of 3 to 8 members containing 0-2 heteroatoms independently selected from O, S and N;

R^8 is selected from the group consisting of: C_{1-10} alkyl, Aryl and C_{1-10}alkyl-Aryl; and

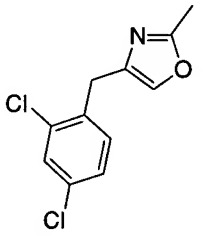
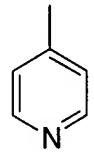
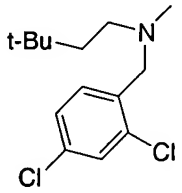
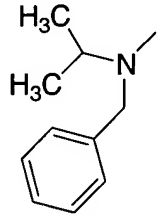
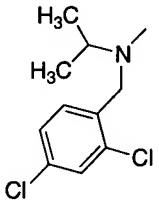
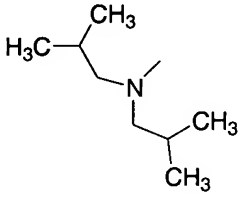
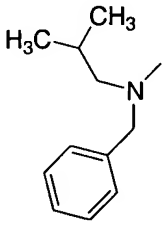
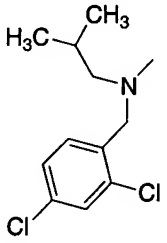
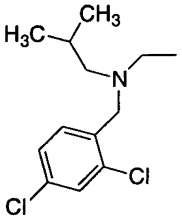
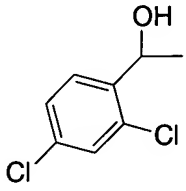
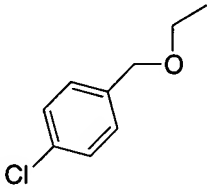
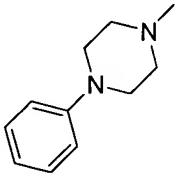
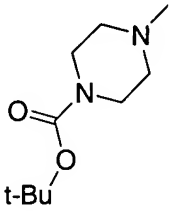
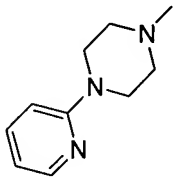
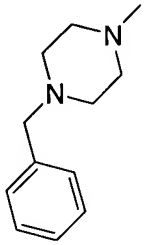
R^{11} is selected from the group consisting of: halo, CN, C_{1-4}alkyl, Aryl, CF_3 and OH;

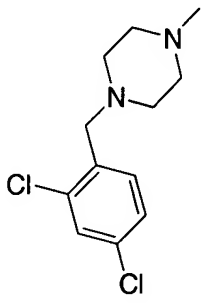
~~wherein~~ and R^2 is selected from the table below:

R^2		
		

O
N
N
Cl
F
CH3
H3C
CF3
t-Bu

7. (currently amended) A compound in accordance with claim [[1]] 6 wherein R^3 is C_{1-10}alkyl with 0-1 R^6 groups attached.

8. (currently amended) A compound in accordance with claim [[1]] 6 wherein R^4 is H or C_{1-10}alkyl.

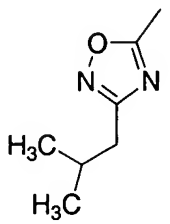
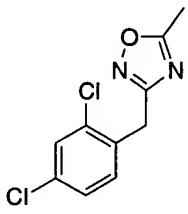
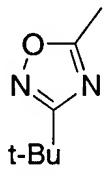
9. (currently amended) A compound in accordance with claim [[1]] 6 wherein R^5 is C_{1-10}alkyl having 1-2 R^6 groups attached.

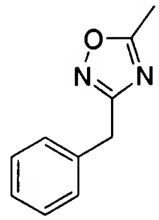
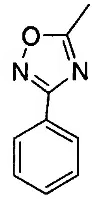
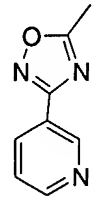
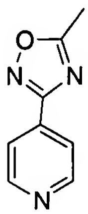
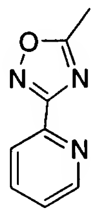
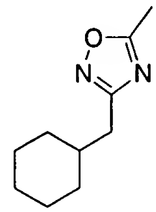
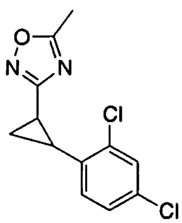
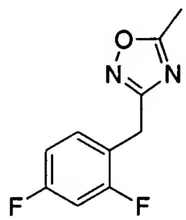
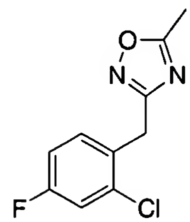
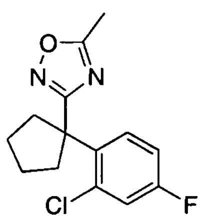
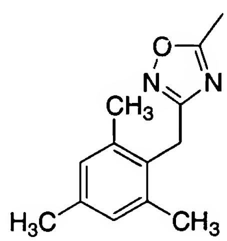
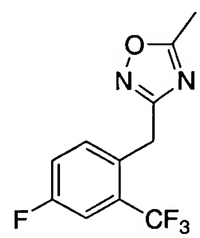
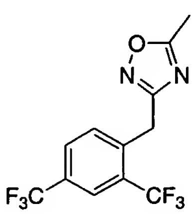
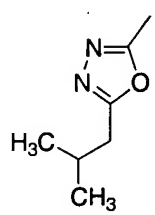
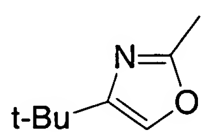
10. – 13. (cancelled)

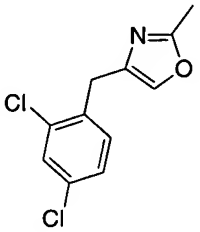
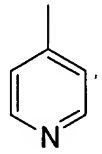
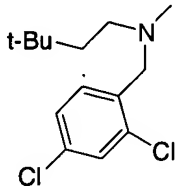
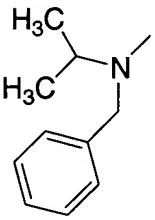
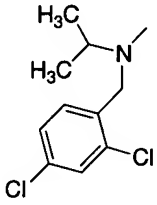
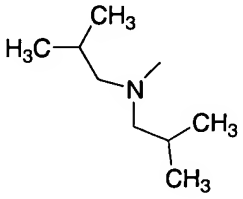
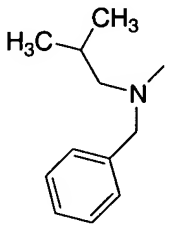
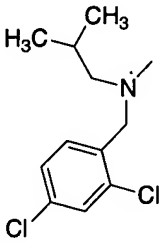
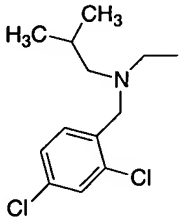
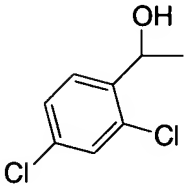
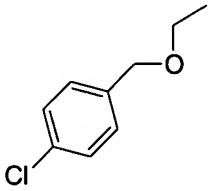
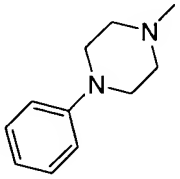
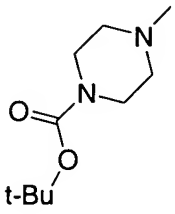
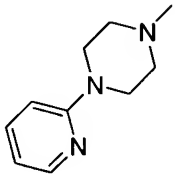
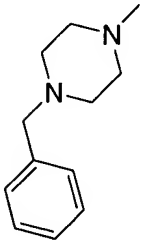
14. (currently amended) A compound in accordance with claim [[5]] 6 wherein:

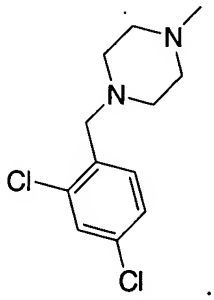
R^1 represents methyl;

R^3 represents 3-pentyl, and R^2 is selected from the table below:

R^2		
		

15. (currently amended) A compound in accordance with claim [[1]] 6 selected from the group consisting of:

N-[3-cyano-5-(3-isobutyl-1,2,4-oxadiazol-5-yl)-4-methylthien-2-yl]-2-ethylbutanamide;

N-{3-cyano-5-[3-(2,4-dichlorobenzyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;

N-[5-(3-tert-butyl-1,2,4-oxadiazol-5-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;

N-[5-(3-benzyl-1,2,4-oxadiazol-5-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;

N-[3-cyano-4-methyl-5-(3-phenyl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;

N-[3-cyano-4-methyl-5-(3-pyridin-2-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;

N-[3-cyano-4-methyl-5-(3-pyridin-3-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;

N-[3-cyano-4-methyl-5-(3-pyridin-4-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;

N-{3-cyano-5-[3-(cyclohexylmethyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;

N-(3-cyano-5-{3-[1-(2,4-dichlorophenyl)cyclopropyl]-1,2,4-oxadiazol-5-yl}-4-methylthien-2-yl)-2-ethylbutanamide;

N-{3-cyano-5-[3-(2,4-difluorobenzyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;

N-{5-[3-(2-chloro-4-fluorobenzyl)-1,2,4-oxadiazol-5-yl]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;

N-(5-{3-[1-(2-chloro-4-fluorophenyl)cyclopentyl]-1,2,4-oxadiazol-5-yl}-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide;

N-{3-cyano-5-[3-(mesitylmethyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;

N-(3-cyano-5-{3-[4-fluoro-2-(trifluoromethyl)benzyl]-1,2,4-oxadiazol-5-yl}-4-methylthien-2-yl)-2-ethylbutanamide;

N-(5-{3-[2,4-bis(trifluoromethyl)benzyl]-1,2,4-oxadiazol-5-yl}-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide;
N-[3-cyano-5-(5-isobutyl-1,3,4-oxadiazol-2-yl)-4-methylthien-2-yl]-2-ethylbutanamide;
N-[5-(4-tert-butyl-1,3-oxazol-2-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;
N-{3-cyano-5-[4-(2,4-dichlorobenzyl)-1,3-oxazol-2-yl]-4-methylthien-2-yl}-2-ethylbutanamide;
N-(3-cyano-4-methyl-5-pyridin-4-ylthien-2-yl)-2-ethylbutanamide;
N-{3-cyano-5-[(2,4-dichlorobenzyl)(3,3-dimethylbutyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;
N-{5-[benzyl(isopropyl)amino]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;
N-{3-cyano-5-[(2,4-dichlorobenzyl)(isopropyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;
N-[3-cyano-5-(diisobutylamino)-4-methylthien-2-yl]-2-ethylbutanamide;
N-{5-[benzyl(isobutyl)amino]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;
N-{3-cyano-5-[(2,4-dichlorobenzyl)(isobutyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;
N-{3-cyano-5-[(2,4-dichlorophenyl)(hydroxy)methyl]-4-methylthien-2-yl}-2-ethylbutanamide;
N-(3-cyano-5-{[(2,4-dichlorobenzyl)(isobutyl)amino]methyl}-4-methylthien-2-yl)-2-ethylbutanamide;
N-[3-cyano-4-methyl-5-(4-phenylpiperazin-1-yl)thien-2-yl]-2-ethylbutanamide;
tert-butyl 4-{4-cyano-5-[(2-ethylbutanoyl)amino]-3-methylthien-2-yl}piperazine-1-carboxylate;
N-[3-cyano-4-methyl-5-(4-pyridin-2-ylpiperazin-1-yl)thien-2-yl]-2-ethylbutanamide;
N-[5-(4-benzylpiperazin-1-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;
N-{3-cyano-5-[4-(2,4-dichlorobenzyl)piperazin-1-yl]-4-methylthien-2-yl}-2-ethylbutanamide; and
N-(5-{[(4-chlorobenzyl)oxy]methyl}-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide, as well as the pharmaceutically acceptable salts and solvates thereof.

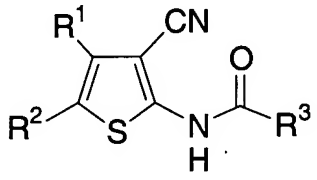
16. (currently amended) A pharmaceutical composition which is comprised of a compound in accordance with claim [[1]] 19 in combination with a pharmaceutically acceptable carrier.

17. (currently amended) A method of treating type 2 diabetes mellitus in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim [[1]] 19 in an amount that is effective to treat type 2 diabetes

mellitus.

18. (currently amended) A method of preventing or delaying the onset of type 2 diabetes mellitus in a mammalian patient in need thereof, comprising administering to said patient a compound in accordance with claim [[1]] 19 in an amount that is effective to prevent or delay the onset of type 2 diabetes mellitus.

19. (New) A compound represented by formula I:



I

or a pharmaceutically acceptable salt or solvate thereof wherein:

R^1 is selected from the group consisting of: H, C_{1-10}alkyl, Aryl, Heteroaryl and Heterocyclyl,

said alkyl, Aryl, Heteroaryl and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

R^2 represents NR^4R^5,

R^3 is selected from the group consisting of: C_{1-10}alkyl and Aryl, said alkyl and Aryl being optionally substituted with one to four substituents independently selected from R^6;

R^4 is selected from H and C_{1-10}alkyl,

R^5 is C_{1-10}alkyl having 1-2 R^6 groups attached;

R^6 is independently selected from the group consisting of halo, C_{1-7}alkyl, Aryl, Heteroaryl, Heterocyclyl, OR^7, SR^7, $S(O)_mR^8$, $S(O)_2OR^8$, $S(O)_mNR^7R^8$, NO_2, NR^7R^8, $O(CR^9R^{10})_nNR^7R^8$, $C(O)R^8$, CO_2R^7, $CO_2(CR^9R^{10})_nCONR^7R^8$, $OC(O)R^8$, CN, $C(O)NR^7R^8$, $NR^7C(O)R^8$, $OC(O)NR^7R^8$, $NR^7C(O)OR^8$, $NR^7C(O)NR^8R^9$, $CR^7(NOR^8)$, $(CR^9R^{10})_n$-Aryl, $(CR^9R^{10})_n$-Heteroaryl, $(CR^9R^{10})_n$-Heterocyclyl, CF_3 and OCF_3;

wherein m is 0, 1 or 2 and n is an integer from 1 to 7, and the alkyl, Heterocyclyl, Aryl and Heteroaryl groups and portions are optionally substituted with 1-4 substituents selected from a group independently selected from R^{11};

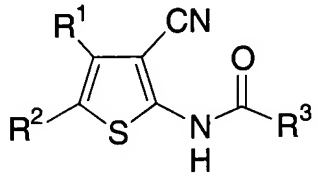
R^7, R^9 and R^{10} are independently selected from the group consisting of: H, C_{1-7}alkyl, Aryl, Ar-C_{1-10}alkyl and mono-, di- and tri- halo substituted Ar-C_{1-10}alkyl,

or one R^9 and one R^{10} are taken together with the atoms to which they are attached and any intervening atoms and represent a ring of 3 to 8 members containing 0-2 heteroatoms independently selected from O, S and N;

R^8 is selected from the group consisting of: C_{1-10} alkyl, Aryl and C_{1-10}alkyl-Aryl; and

R^{11} is selected from the group consisting of: halo, CN, C_{1-4}alkyl, Aryl, CF_3 and OH.

20. (New) A compound represented by formula I:



I

or a pharmaceutically acceptable salt or solvate thereof wherein:

R^1 is selected from the group consisting of: H, C_{1-10}alkyl, Aryl, Heteroaryl and Heterocyclyl,

said alkyl, Aryl, Heteroaryl and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

R^2 represents C_{1-10} alkyl substituted with one to two R^6 groups;

R^3 is selected from the group consisting of: C_{1-10}alkyl and Aryl, said alkyl and Aryl being optionally substituted with one to four substituents independently selected from R^6;

R^4 is selected from the group consisting of: H, C_{1-10}alkyl, Aryl, Heteroaryl, Heterocyclyl, said alkyl, Aryl, Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

R^5 is selected from the group consisting of: C_{1-10}alkyl, Aryl, Heteroaryl and Heterocyclyl, said alkyl, cycloalkyl, Aryl Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R^6;

or alternatively, R^4 and R^5 are taken together with the atoms to which they are attached and represent a ring of 5 to 8 members containing 0-2 heteroatoms independently selected from oxygen, sulfur and nitrogen, and optionally substituted with one to four substituents independently selected from R^6;

each R^6 is independently selected from the group consisting of: OR^7, Aryl, mono-halophenyl and di-halophenyl

and when R^2 is other than C_{1-10} alkyl, R^6 is independently selected from the group

wherein m is 0, 1 or 2 and n is an integer from 1 to 7, and the alkyl, Heterocyclyl, Aryl and Heteroaryl groups and portions are optionally substituted with 1-4 substituents selected from a group independently selected from R^{11};

R^7, R^9 and R^{10} are independently selected from the group consisting of: H, C_{1-7}alkyl, Aryl, Ar-C_{1-10}alkyl and mono-, di- and tri- halo substituted Ar-C_{1-10}alkyl,

or one R^9 and one R^{10} are taken together with the atoms to which they are attached and any intervening atoms and represent a ring of 3 to 8 members containing 0-2 heteroatoms independently selected from O, S and N;

R^8 is selected from the group consisting of: C_{1-10} alkyl, Aryl and C_{1-10}alkyl-Aryl; and

R^{11} is selected from the group consisting of: halo, CN, C_{1-4}alkyl, Aryl, CF_3 and OH.

21. (new) A pharmaceutical composition which is comprised of a compound in accordance with claim 20 in combination with a pharmaceutically acceptable carrier.

22. (new) A method of treating type 2 diabetes mellitus in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 20 in an amount that is effective to treat type 2 diabetes mellitus.

23. (new) A method of preventing or delaying the onset of type 2 diabetes mellitus in a mammalian patient in need thereof, comprising administering to said patient a compound in accordance with claim 20 in an amount that is effective to prevent or delay the onset of type 2 diabetes mellitus.